



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/652,746

08/29/2003

Richard L. Watkins

4022-000013

1768

27572 7590 12/23/2008  
HARNESSE, DICKEY & PIERCE, P.L.C.  
P.O. BOX 828  
BLOOMFIELD HILLS, MI 48303

EXAMINER

MIGGINS, MICHAEL C

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/652,746	<b>Applicant(s)</b> WATKINS ET AL.	
	<b>Examiner</b> Michael C. Miggins	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 54-64 and 75-85 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 54-64 and 75-85 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/7/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/7/08 has been entered.

## **REJECTIONS WITHDRAWN**

2. All of the rejections maintained in the final rejection of 4/8/08, page 2, paragraphs 2.

## **REJECTIONS REPEATED**

3. There are no rejections repeated.

## **NEW REJECTIONS**

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 54-56, 60-62, 64, 75-79, 83 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonk et al. (US 6203868) in view of Famili et al. (EP 0 466 057 A1, cited by applicant).

Bonk discloses a shoe, comprising an upper and a sole, wherein the sole comprises one or more inflatable membranes for containing an inflationary gas (column 9, lines 45-67), wherein at least one of the membranes comprises a multilayer composite (column 10, lines 47-65), wherein the composite comprises at least one flexible layer comprising a blend of thermoplastic polyurethane, hydroxyl functional polymer, EVOH copolymer which reads on the formula recited in claim 54 (column 10, lines 47-65, column 11, lines 11-28) and wherein the composite further comprises at least one layer of ethylene vinyl alcohol copolymer and at least one layer of thermoplastic polyurethane (column 10, lines 47-65, column 11, lines 11-28).

Bonk fails to disclose either 0.05, 0.5, or 1% to either 5 or 20% by weight gel reducing additive, wherein the gel reducing additive is selected from the group consisting of compounds with at least one hydroxyl group, compounds with at least one primary amino group, compounds with at least one secondary amino group, compounds with at least one carboxyl group, and compounds with at least one carboxylic anhydride group, wherein the molecular weight of the gel reducing additive is less than or equal to either 200 or 2000 and wherein the gel reducing additive comprises a compound having two or more hydroxyl groups, and wherein the gel reducing additive is selected from the group consisting of ethylene glycol, diethylene glycol, glycerol, etc..

Famili discloses 0.05, 0.5, or 1% to either 5 or 20% by weight gel reducing additive (since the plasticizer serves the function of lowering viscosity and gel content page 3, lines 19-20, page 4, lines 13-21), wherein the gel reducing additive is selected from the group consisting of compounds with at least one hydroxyl group, compounds with at least one primary amino group, compounds with at least one secondary amino group, compounds with at least one carboxyl group, and compounds with at least one carboxylic anhydride group, wherein the molecular weight of the gel reducing additive is less than or equal to either 200 or 2000 (page 4, lines 13-21) in polyurethanes to reduce the formation of gel particles (page 4, lines 5-21) and wherein the gel reducing additive comprises a compound having two or more hydroxyl groups, and wherein the gel reducing additive is selected from the group consisting of ethylene glycol, diethylene glycol, glycerol, etc. (page 4, lines 13-21) in a multilayer film (page 3, lines 44-52) in order to provide a clear gel free film (page 3, lines 19-20).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided either 0.05, 0.5, or 1% to either 5 or 20% by weight gel reducing additive, wherein the gel reducing additive is selected from the group consisting of compounds with at least one hydroxyl group, compounds with at least one primary amino group, compounds with at least one secondary amino group, compounds with at least one carboxyl group, and compounds with at least one carboxylic anhydride group, wherein the molecular weight of the gel reducing additive is less than or equal to either 200 or 2000 and wherein the gel reducing additive comprises a compound having two or more hydroxyl groups, and wherein the gel

Art Unit: 1794

reducing additive is selected from the group consisting of ethylene glycol, diethylene glycol, glycerol, etc. in the shoe of Bonk in order to prevent the formation of gel particles in the polyurethane of Bonk as taught or suggested by Famili.

6. Claims 57-59 and 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonk et al. (US 6203868) in view of Famili et al. (EP 0 466 057 A1, cited by applicant), as applied to claims 54-56, 60-62, 64, 75-79, 83 and 85 above, and further in view of Bonk et al. (US 6127026).

Bonk '868 and Camilleri disclose the composite comprising outer layers made of a blend of thermoplastic polyurethane ethyl vinyl alcohol copolymer and gel reducing additive as discussed above.

Bonk '868 fails to disclose inner layers comprising alternating layers of ethylene vinyl alcohol copolymer and thermoplastic polyurethane, wherein the composite comprises 10, or 30, or more inner layers.

Bonk '026 discloses inner layers comprising alternating layers of ethylene vinyl alcohol copolymer and thermoplastic polyurethane, wherein the composite comprises 10, or 30, or more inner layers (column 11, lines 13-51, column 12, lines 1-27, column 14, lines 57-67, column 15, lines 1-14) in a shoe for the purpose of providing improved elastomeric and gas barrier properties (column 4, lines 56-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided inner layers comprising alternating layers of ethylene vinyl alcohol copolymer and thermoplastic polyurethane, wherein the

Art Unit: 1794

composite comprises 10, or 30, or more inner layers in the shoe of Bonk '868 in order to provide improved elastomeric and gas barrier properties as taught or suggested by Bonk '026.

7. Claims 63 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonk et al. (US 6203868) in view of Famili et al. (EP 0 466 057 A1, cited by applicant), as applied to claims 54-56, 60-62, 64, 75-79, 83 and 85 above, and further in view of Cook (US 4156768).

Bonk fails to disclose the use of gel reducing additives which comprise a compound with two or more amino groups.

Cook discloses amines for use in aminolysis of polyurethanes to reduce or prevent gel formation (column 2, lines 32-46, column 4, lines 19-44 and column 7, lines 40-68). It would therefore have been obvious to use diamines as gel reducing agents since diamines react readily with polyurethanes in order to prevent gel formation as suggested by Cook.

### ***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

Art Unit: 1794

1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 54-64 and 75-85 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 28-54 of copending Application No. 10/633,764 in view of Famili et al. (EP 0 466 057 A1, cited by applicant).

Claims 28-54 of copending Application No. 10/633,764 recite all of the limitations set forth in instant claims 54-56 and 58-64 except for the gel reducing agent.

Famili is discussed in the 103 rejection above.

It would have been obvious to one of ordinary skill in the art at the time applicant's invention to have provided a gel reducing agent in the invention recited in claims 28-54 of copending Application No. 10/633,764 in order to prevent gel formation in the polyurethane as taught or suggested by Famili.

This is a provisional obviousness-type double patenting rejection.

### **ANSWERS TO APPLICANT'S ARGUMENTS**

10. Applicant's arguments of 10/7/08 have been considered but are moot in view of the new grounds for rejection set forth above.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is 571-272-1494. The examiner can normally be reached on 1:00-10:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael C. Miggins/  
Primary Examiner, Art Unit 1794

MCM  
12/19/2008